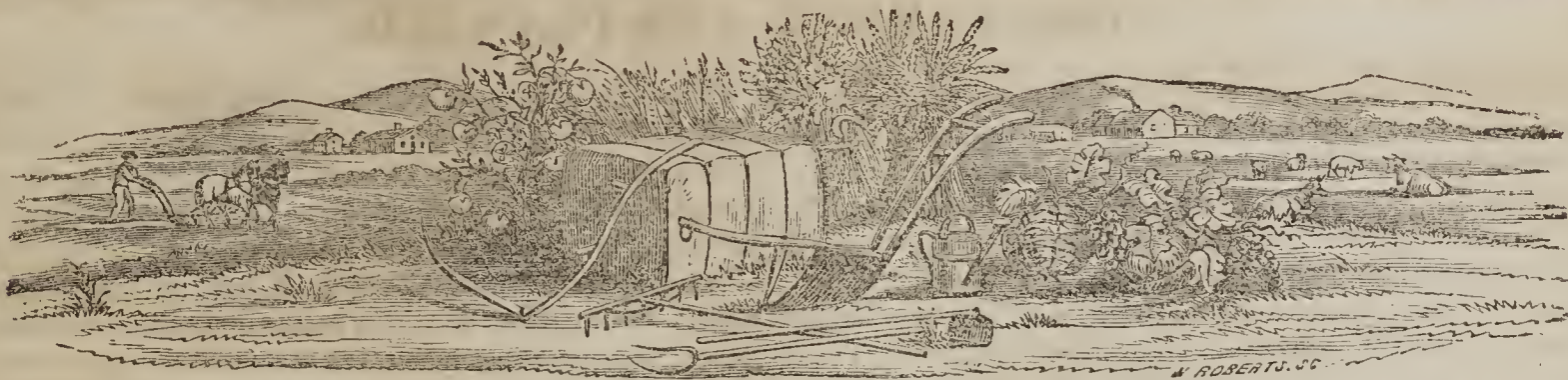


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FARMER AND PLANTER.

DEVOTED TO AGRICULTURE, HORTICULTURE, MECHANICS, DOMESTIC AND RURAL ECONOMY.

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Rail Roads, vs. Coal Roads.

That steam power has already revolutionized the political, social, and commercial relations of the world, there can be no question. But that its ultimate and full advantages have been attained in its application to railroad transportation, is a question not so satisfactorily determined. The results of this power in the navigation, not only of lakes and rivers, but of the broadest oceans have been so satisfactory and triumphant, that it were vain to hope, and visionary to expect from the wisdom and ingenuity of man, any material improvement. The plan would seem to have reached very near perfection, both as to economy and efficiency.

But in respect to rail roads, although the flight of the locomotive seems almost capable of annihilating space, yet the cost of constructing and repairing the lengthened rail-way over which it moves is a grievous drawback—a most withering blight upon the general prosperity which it is otherwise calculated to dispense.

Is there no remedy for so great an evil? Is it to be presumed that the ingenuity of man finds the first conception

an overmatch for all his inventive powers? Can it be believed that fate has so ordained, that out of the domain of all nature, the only material calculated to answer as the basement of these magnificent commercial thoroughfares, is hewed sills of perishable timber; and these covered at a cost of millions with bar iron, also perishable? For my own part I am free to admit that I have presentiments the opposite of all this. And that although rail roads have become the hobby horses of every civilized nation, and the wealth of capitalists and states is every where freely expended on them, costly as they are, as at present constructed. Yet the time will come when iron rail-ways will be superseded by some cheap, firm and indestructible material, of little cost and of easy construction.

That my views may not appear altogether speculative and visionary, I propose to offer in support of the theory I have adopted, a few practical facts and observations; which, though not conclusive of themselves, would seem calculated at least to stimulate enquiry, and encourage experiments in the hope of attaining an object of such transeendent importance to the interests of mankind.

The great question that presents itself is, are there not materials, either on the earth or beneath its surface, used either simply or in combination, calculated to make a firm, smooth, and indestructible road for the transportation of locomotives and freight cars. That the material used should possess solidity, and an insusceptibility to be softened by water, there can be no question. But of this kind of substance, an inexhaustible supply is to be met with in all parts of the United States, not only in the innumerable variety of rocks, but also in the abundance of shells,

and vegetable and mineral coal every where readily obtained.

In a recent communication through the Patent Office report, the plan of constructing roads of charcoal, and their firmness and durability is described by a writer in the Cleveland Herald. After a minute description of the simple and expeditious method adopted in the construction of the road, the writer observes:—

“A road of this kind is now being made in the Cotton-wood Swamp, near Blissfield, in Michigan. About seventy rods are completed, twenty of which have been used for the last seven months, and the balance for three months. And as it is upon the great thoroughfare West, and as, in addition, sixteen heavy loaded wagons to and from an ashery, pass over it daily, it has been well tried during the winter and spring; and yet there is no appearance of ruts, but it presents an even, hard surface.” “The company making the road pay the contractors at the rate of six hundred and sixty dollars per mile. The road is said to become very compact and free from mud or dust. Hon. Elisha Whittlesey and Mr. Newton, an engineer, who inspected the Blissfield road above mentioned, state that they passed over it the morning after a rain.—At each end of the different sections of the coal road, the mud on the causeway the fellow deep, where there was that depth of earth; and nearly or quite half axle tree deep where the logs were broken. When on the coal road there was not the least standing, and the impress of the feet of a horse passing rapidly over it, was like that made on the hard washed sand as the surf recedes on the shore of the lake.—The water is not drained from the side ditches, and yet there is no ruts or in-

qualities in the surface of the coal road, except what is produced by more compact packing on the line of travel."

The above facts are novel but not the less interesting, and are precisely such as we should have anticipated from the experiment. Coal, though a very brittle substance, possesses great solidity, and is essentially indestructible. Belonging to the class of inorganic bodies, the irregularity of its fragments when broken to pieces, as is also the case with every variety of rocks, insures that immobility and compactness as described on the Blissfield road—and which I have often seen exemplified on a small scale, where the public highways have been made to pass old coalings.

If the Blissfield road was hard and firm, without ruts or dust, both in wet weather and in dry weather, and that too under the pressure of sixteen heavy loaded wagons daily to and from an ashery, with tires only two inches wide, and in addition the whole amount of travel on the great thorough-fare West. It is utterly impossible on the closest examination of the subject to discover, how the result could be less favorable if the road had been exclusively appropriated to rail road cars, the surface of whose wheels might be made to vary from five to ten, or twenty inches, if necessary, and which, instead of pursuing one direct line of travel, as wagons always do drawn by animal power, would vary almost the full diameter of the road. It is obvious that the natural tendency of wheels thus constructed, would be to compress, pack down, and harden the surface of the road, and reduce it rapidly to a state of perfect smoothness. Which last would result as a necessary consequence from the increased pressure and percussive force, with which the wheels would act on points elevated above the common level.

But favorable as are the indications in respect to the policy of char-coal roads, yet I cannot entertain a doubt but that, with pounded rock and gravel, in combination with silicious earth, a road may be formed possessing in a still more eminent degree the qualities, at least, of firmness and durability. Such deposits are met with in a state of nature in thousands of localities, in all the hilly regions of the United States, covering the roads and high-ways, and over which the heaviest train of cars would move with any desirable velocity, without making a sensible impression in a century! Such is the case even on the ordinary turnpike

roads. Which though composed when new of broken quartz, and almost impassible from their size and mobility, yet when sufficiently broken up, and the requisite amount of smaller fragments have accumulated to fill the interstices, the road becomes as hard and as smooth as as the face of a mill-stone. And were no wheels used on such road except those having the broad tire, those ruts and irregularities, which in the course of time require repairs, would cease to exist. But the necessity of repairs on the kind of roads in question, results not so much from the wearing out of the road, as from the washing away of the finely pulverized rock from the surface on inclined plains. An evil that would be completely obviated by the leveling practiced in the construction of rail roads.

I have no data at hand to enable me to form an estimate of the cost of such a road, though in all the hilly regions where rock and gravel are abundant, I should suppose it would scarcely exceed that of the coal road at Blissfield—certainly not more than an ordinary McAdamised way. The mode of construction would of course be simple, and expeditious. A thin strata, a mere covering of the graded road with rocks broken to the size of pound stones, another layer of half that size to fill the interstices, and finally, a covering of small pebbles with a mixture of silicious earth, would speedily assume a smooth and indestructible surface, that would last for centuries and improve to the last. I here conclude my observations on this part of the subject, with a repetition of the sentiment already advanced that, ridiculous as my assumptions may be, time will test their truth, and substantiate their claims to public confidence.

Assuming then, the fact, that a road may be constructed of cheap and indestructible materials, sufficiently firm and smooth for the rapid transportation of locomotives and freight cars, the question presents itself at once—why should the plan not be adopted—what reasons contraindicate the policy? There are but few, very few, I presume, who will call in question the practicability of directing the train with unerring certainty, by a mechanical contrivance both simple and infallible. It is admitted that the same amount of steam power may not be expected to convey as much freight on the coal road, or McAdamised way, as on the iron railing. But the efficiency of the locomotive does not depend on the pow-

er of steam alone, for that is without limit, but upon the amount of adhesiveness derived from its weight on the iron railway. That either coal or gravel roads would possess pre-eminent advantages in this respect, no one will pretend to argue, and to that extent an increased amount of steam power might be made available. Nor is this all. By enlarging the diameter of the wheels, and especially the cranks, the means of overcoming increased resistances on such roads might be obtained to any desirable extent. But if the plan is at all practicable—if the locomotive now in use, should be found capable of conveying less than half the amount of freight on such roads, the incalculable superiority of the plan in point of economy and public convenience, would render it a matter of the highest importance to the interest of mankind.

One of the first and most important advantages resulting from the plan, would consist in having a double track, which would effectually obviate those vexatious delays inseparable from the single track. It would prevent all danger of collisions, so desiructive, of late, both of life and property, from the great facility with which the approaching trains could immediately be directed to the right.—It would at once enable the company to dispense with that heavy host of hirelings engaged in the hewing of timber and effecting repairs. It dispenses for ever with that heaviest of items, the cost of iron. And with the above, it would dispense with that swarm of officers and fat salaries, which consume the greater part of the profits of rail road enterprise. And finally, it would dispense with the services of surgeons and bone-setters, for all time to come—since running off the road would never happen, unless the engineer should fall asleep at his post.

If the plan is at all practicable, it would give a renewed impulse to rail road enterprise. If a road could be constructed at a few thousand dollars per mile, yea, at almost any cost, of imperishable materials that would improve for centuries, and require little or no cost for repairs. The whole expense of companies would be narrowed down to the cost of locomotives, freight cars and fuel.—And the profits of stock, with the freights reduced one half below their present rates, would pay most satisfactory dividends.

I know full well the extent to which my views must expose me to public ridicule. I have long since had need to appreciate the taunts and sneers of vain but superficial men, assembled in sapient groups about the bar-rooms and fire-sides of village hotels, "Where one fool lols his tongue out at another, And shakes his empty noddle at his brother."

I know that an attempt to innovate upon established usages, or to overthrow existing establishments, is always regarded at first as the height of arrogance and folly, for

"Faith, fanatic faith, once wedded fast
To some fond falsehood hugs it to the last"

But with a knowledge of all this, I thrust my crude suggestions before the public eye, with the single question, in conclusion: is there not enough plausibility in the plan to justify an experiment.

Pendleton, Jan., 1852.

PRY.

What is the amount of the Cotton Crop?

This is always an interesting enquiry, and of little less importance than the price itself; in fact the quantity and the price may be regarded convertible terms, or rather, it should be said, one is invariably the exponent of the other. Cotton planters may hold local and general conventions, they may form companies with large capital, and devise means to control the market; they may hold back the cotton at one season, and bring it forward at another, in accordance with the directions of a wise council, but the attempt will fall far short of securing the object, and the whole experiment will wind up ingloriously the second, or possibly the third year. The scheme may prove an advantage to a few, but not to the planter, nor to the credit of any. At best, it would turn out, I will call it by a soft name, a speculation.

The old theory will hold good, modified only in a slight degree by circumstances. Supply and demand, with associations or without them, will always regulate the price, and the only remedy planters have for low prices is to diversify their pursuits, and give labor and capital an other direction than that of cotton culture.

The impression is very general in this quarter that the crop of 1851 will be found to be very large. There is, however, as usual, a difference of opinion on this point. A planter high in authority, says to me, "as to the crop of Miss., I have, since the first of September, traveled not less than 500 miles, most of it on different routes, seeing at least 400 miles of this state and Eastern Louisiana, and by enquiry I have informed myself as well as possible, and I do not think there is one bale to the hand more than last year, or, in other words, Mississippi will send forward about 100,000 bales more than last year. I am fully aware that much of our country has exceeded the above, yet other parts have fallen short.

The storm in November cut off a vast deal I am sure. I lost one twelfth of what I made. The corn crop is generally better than has been supposed."

If to the above opinion, as to the amount of the crop, I were to add my own, formed from conversation with gentlemen from different parts of Alabama and Mississippi, assembled at Montgomery, Mobile, New Orleans, and Jackson, I should express the conviction that, if there is any error in the above estimate, it is in placing the figures too low. — Should the crop, when in, not turn out large, I shall not regret it. On the bayous and rivers of western Miss., the crop is as fully in market as is usual, but in all the region accommodated by the Tombigbee, which embraces western Alabama, upper and eastern Mississippi—a fine country—the cotton is yet at home. The river has not been, nor is it yet navigable, and of course it is impracticable to ship the product of this region. After the fall of the rains here, the receipts in the Gulf ports may be expected to be greatly swollen. A considerable alarm has been felt by planters lest they might not get in this crop at all. This is certainly a potent argument for making rail roads among us. Yours, truly, JACKSON.

Mississippi, Jan. 30., 1851.

Improvement of worn-out Lands in Virginia.

THE following communication from the Hon. Willoughby Newton, detailing his improvement of a worn-out farm in Eastern Virginia, will command the most intense interest. His success should not only stimulate the young men of the good old commonwealth, to remain at home and improve their paternal estates, but should attract capitalists from abroad. It must be obvious that there is no land in our country more susceptible of improvement—none offering greater inducements to investments. The facts stated are of peculiar value just at this time, and the thanks of the farmer are due to Mr. Newton for furnishing the statement, which is made at our request. —*Ed. American Farmer.*

LANDEX, Westm'd Co. Va., Aug. '51.

MR. EDITOR:—I, to day, finished threshing the crop of wheat on this farm, and, in compliance with my promise, proceed to give you the result. The farm contains three hundred and eighty acres, and was purchased about fifteen years ago, at \$4 an acre, a price then deemed high for "forest land." In a hopeful spirit, which I like to encourage in myself as well as in others, as not only conducive of success, but essential to happiness, I ventured to say of it in my address delivered in October last, before the Agricultural Society of Maryland,

"the whole cost of the farm was \$1520, and I have good reason to expect, with a favorable season, from the crop now sown and dressed with guano, a bushel of wheat for every dollar of the prime cost of the farm." This was no doubt deemed by many, a very extravagant expectation, and was probably set down to the credit of an over sanguine temper.—The actual result, however, has far transcended even my hopes, the yield being 2070 from 102 bushels of seed, or over 20 for one throughout the entire crop. 46 bushels were sowed on clover fallow, and yielded 1040, or about 22½ for one.—There were two varieties of wheat, the blue stem white, and Ruffin's early purple straw. The blue stem was sowed on the fallow and the better part of the corn land and produced, from 80 bushels of seed, 1668 bushels. The early purple straw was sowed on poor corn land, neither limed, nor otherwise improved, than by the single dressing of guano, and from 22 of seed, yielded 402 bushels. The whole expenditure for this crop in guano was about \$400, and it was applied to both fallow and corn land in proportion to its supposed strength at from 120 to 210 lbs. to the acre.

It will be thus seen that I have derived from this single crop, not only "a bushel of wheat for every dollar of the prime cost of the farm," but have also the seed returned and 448 bushels to reimburse the money expended in the guano, to say nothing of the large quantity of straw and the improved condition of the land. Besides the profit derived from the wheat, the farm furnishing an abundance of milk and butter, fruit, vegetables, and fuel for a very large family, and will produce of corn this year, 1000 bushels, with every prospect of a great annual increase for the future. I leave you to calculate the profit of such an investment.

I have heard of larger yields from small lots dressed with guano this year, on land similar to mine, but I am not aware of any instance where as much as one hundred bushels were sown, on any one farm of like quality, where the yield has been as great. I therefore infer, that although there may be no peculiar merit in my mode of applying guano, it cannot be very defective, and as it is a subject of great importance, about which there is considerable diversity of opinion, I take occasion to state my practice. The guano, after being sifted and reduced to proper fineness, is carried to the field in bags in the dry state, empty barrels are placed at convenient distances for the sower, and each bag in turn emptied into a barrel and mixed with water until it is wet enough to be sowed without blowing away. It usually takes a common bucketful to a bag. This is the only addition to the guano, and the water is used for convenience to the sower, without reference to any virtue to be derived from the mixture, though probably in a dry season that may be attended with benefit.—The guano is sowed, as evenly as possible, on the surface of the rough fallow; and to ensure its equal distribution (the land having been previously laid off by

furrows at 10 feet distance) it is sowed twice over. A heavy harrow immediately follows, which partially intermixes the guano with the surface soil, and prepares the land to receive the seed, which is then sowed and put in with the common shoe horn cultivator, followed by heavy harrows, which finish the operation. The guano is thus thoroughly incorporated with the soil, and neither remains on the surface nor is buried too deep. Experience and observation have taught us, that all coarse manures should be applied on the surface, and all fine manures, not excepting guano, as near the surface as may be, consistently with their thorough incorporation with the soil.

My county-man, Mr. L. Washington, a farmer of great intelligence and observation, informed me, that in compliance with the usual prescription, he buried guano, a few years ago, deeply, with the plow, for wheat. The crop was not very much benefitted, and the next year, when the land was prepared for corn, a large part of the guano was turned up entirely unchanged. On corn land my practice has been either to turn both wheat and guano in together with a light furrow, or to put the guano in first, with a light plow, and to cover the wheat with a harrow. I have not perceived any material difference in the result. In this, as in all other matters on the farm, convenience and saving of time should be regarded.

I have been familiar with this farm from my childhood to the present time, and have no recollection of its ever having produced as much as twenty-five bushels of wheat any one year, until I commenced improving it. I purchased it merely as a healthy site for a residence, without the remotest idea of ever deriving a profit in money from it. For six or eight years I did not deem any part of it capable of producing wheat, and none was sowed. The progress of the wheat crop from year to year, has been very remarkable. The first crop sowed was a total failure, not worth threshing, and was used as litter for the stables. The second yielded 56 bushels; the third, by the use of one ton of African guano and some lime and ashes, yielded 220 bushels; the fourth, from an expenditure of one hundred dollars in African guano, (a very inferior article) produced 320 bushels; the fifth, from an expenditure of two hundred dollars in very poor Patagonian guano, produced 540 bushels; the sixth, from an expenditure of three hundred dollars, partly in Peruvian and partly in Patagonian guano, yielded 1089 bushels; the seventh and last, from four hundred dollars expended in Peruvian guano, produced the crop stated in the first part of this communication.

During this period, nearly all the arable land has been limed at the rate of 25 to 50 bushels to the acre, and the rotation changed as rapidly as circumstances would permit, from the old three shift system to the five field fallow system of the Pamunkey. The land has improved, if possible, more rapidly than the crops, and I have no doubt, will, with

judicious management and a small annual expenditure in manures, go on to produce increased crops of grain and grass, until the ultimate point of production of the most fertile soils is reached.

In this improvement, every dollar expended has been refunded with profit, in the crops of each year, and the farm is certainly intrinsically worth now, more than ten times its cost.

These results are surely most encouraging, and should urge the farmers, and especially the young farmers, of Eastern Virginia, to devote their energies to the improvement of the soil, as the surest road for competence, if not to fortune.—Unfortunately, we have not among us, capital and labor sufficient for the full development of the resources of the country. Much of the land must, of necessity, remain unimproved, unless our young men will all remain at home, or we can derive population and capital from other quarters. I cannot believe, that a country, possessing all the advantages of this highly favored region, can remain much longer shut out from general observation, and I predict, as its early destiny, universal improvement.

But I must forbear. I commenced to give you a few facts, and I find myself indulging in an essay. With best wishes for your success in the noble enterprise in which you are engaged,

I remain very truly yours.

WILLOUGHBY NEWTON.

A Word on Education.

WE take the following sensible remarks on education, from the Saturday Gazette. How many children have we and our readers known ruined—made dunces for life, by attempting to make “youthful prodigies” of them, or premature development produced, their health destroyed, and finally, dissolution from “dyspepsia,” or “softening of the brain.” It is lamentably true, as the writer says, “the fault of the age is to value excessively mental education, or more correctly speaking, mere book learning.”—Eds.

“A correspondent asks us at what time the education of a child should begin, and how long it requires, in the case of ordinary children, to complete it. By education he means, he says, what will a fit lad for any pursuit, not professional, or enable a girl properly to fill a position in intelligent society.

These are questions not easily answered. Children differ so much in natural capacity, that the term of study which will bring some up to a certain point of education, will totally fail in the cases of others. Again, the health of some children will not allow such severe study as others can harmlessly endure. It may be laid down as a general rule, that cramming, as it is called, is hurtful; for it taxes the brain at the expense of the other powers, dwarfing the body, or sapping the health, even where it does not impair the intellect, or destroy life. The fault of the age is to value excessively mental education, or, more correctly speaking, mere book learning. Both the morals and health are too often thus sacrificed.

But we have frequently animadverted on this evil; our readers fully know our sentiments respecting it; and therefore, we shall not consume their time needlessly by dwelling on it again.

There are certain improvements, however, which might be made in education, to which, we think, attention may be beneficially directed. It is, for instance, too much the practice to occupy the first ten or fifteen years of children's lives entirely with the school, and then, all at once, to declare their education completed, and to initiate them into a new routine of life. If the child is a boy, he is put to learn a trade or to acquire mercantile knowledge; and from that hour, he is practically told to cast aside his books. If it is a girl, she is, according to the wealth of her parents, taught domestic matters, or “brought out,” as the phrase goes; but study ceases from that hour to be a part of the plan of her education also. This is all wrong. The sudden transition is apt to give a distaste to the new pursuits, or to lead to a complete forgetfulness of the old. We have but to look around us to satisfy ourselves of this, but especially of the last. It is almost the general rule, instead of the exception, to find active business men, at thirty-five or forty, ignorant of nearly everything they learned at school; and the same may be said of women who have become mothers. To what use, we may ask, has been the education of such persons? It is clear that both the time and money consumed by them at school have been wasted.

In our opinion, book education, and the practical education of life should go together. The boy should spend a portion of the day in the workshop, at the store, or on the farm, where tasks should be given to him consistent with his years. Of course time ought to be allowed him for play also, since recreation is absolutely indispensable for health, especially in adolescence. A similar plan should be adopted with girls, who ought to have little household duties assigned them.—It is true that, under this system, children would not learn so fast; but they would sooner become fitted to play the parts of men and women. There would be fewer youthful prodigies; but a larger number would grow up to be healthy adults. Book learning and business would be better understood, and more entertaining. Indeed, with this judicious interchange of study, work and play, the intellectual, moral and physical education would advance simultaneously; and, what is more, the love of books would continue through life, yet without ever becoming a disease; knowledge, business capacity, and sound health would be combined in the same person; the mechanic, machinist, or farmer would be as intelligent as the lawyer, or divine; and the lawyer or divine would, in turn, be free from dyspepsia, or die less frequently from softening of the brain.

We do not put forward these views as original. They have frequently been expressed before, and in various quarters; and many parents are already bringing

up their children in accordance with them. Only regard the matter in the light of common sense, only let fathers and mothers reflect what education ought to be, and all children will be trained up in this way. The old system of apprenticeship, before it degenerated, was better than many more pretending methods of modern education; for, in well ordered households, the apprentice was taught his trade, good morals, and what book learning was deemed sufficient, all at once. Unfortunately, we have few of the right kind of masters now-a-days; and consequently thousand of rowdy apprentices, who run after engines, and are ever ready for riot. Many parents who keep their offspring at home, do not perform their duty as they should. Often the child's morals are left to be picked up at a Sunday school, and his habits of thrift when he begins life for himself; and as a consequence, the boy turns out a good-for-nothing. What wonder, with all this, that society is "out of joint?"

The cardinal maxim to be remembered in training up children, is, that education is threefold, viz:—moral, physical, and intellectual. Give a child the last, only, and he probably becomes either a knave, or a valetudinarian. Give him the first, alone and the chances are that he turns out but a well meaning fool.—Give him the second, at the expense of the others, and he is a bully horse jockey, glutton, or worse, as his taste may decide. But combine all these judiciously, and he cannot fail of being a good member of society, of being successful in life, and of living to a happy old age.

"Can She Spin?"

This question was asked by King James the First, when a young girl was presented to him, and the person who introduced her, boasted of her proficiency in the ancient languages. "I can assure you, your Majesty," said she, "that she can both speak and write Latin, Greek and Hebrew." "These are rare attainments for a damsel," said James, "but tell me, can she spin?"

Many of the young ladies of the present day, can boast of their skill in the fine arts and polite accomplishments, in music, painting and dancing, but can they spin? Or what is perhaps more appropriate to the times, and the modern improvements in labor saving machinery, it may be asked, can they perform the domestic duties of a wife? Do they understand the management of household affairs? Are they capable of superintending, in a judicious manner, the concerns of a family?

A young lady may be learned in the ancient and modern languages, may have made extraordinary proficiency in every branch of literature; this is all very well, and very creditable, and, to a certain

class of the community, who are not obliged, as was St. Paul, "to labor with their own hands," is all that is absolutely requisite, but to a much larger portion of the community, it is of far greater consequence to know whether they can spin.

It is of more importance to a young mechanic, or merchant, or one of any other class of people who depend upon their own industry and exertions, if he marries a wife, to have one who knows how to spin or perform other domestic duties, than one whose knowledge does not extend beyond a great proficiency in literature and the fine arts.

Let the fair daughters of our country imitate the industrious matrons of the past. The companions of those who fought in the Revolution were inured to hardships, and accustomed to necessary toil, and thus did they educate their daughters. Health, contentment, and plenty smiled around the family altar.—The damsel who understood most thoroughly and economically the management of domestic affairs, and was not afraid to put her hands into the wash tub, or to "lay hold of the distaff," for fear of destroying their elasticity, and dimming their snowy whiteness, was sought by the young men of those days as a fit companion for life; but in modern times, to learn the mysteries of the household would make our fair ones faint away; and to labor, comes not into the code of modern gentility.

Industry and frugality will lead to cheerfulness and contentment, and a contented mind will greatly soften the asperities and smooth the rough paths in a man's journey through life. It has been truly said, that a pleasant and cheerful wife is a rainbow in the sky, when the husband's mind is tossed with storms and tempests; but a dissatisfied and fretful wife, in the hour of trouble, is like a thunder cloud, charged with electric fluid.—*Exchange.*

Home Supply.

Messrs. Editors:—If planters in the cotton growing States would be at the trouble of looking into the statistical tables of their neighborhood or county, which show how much corn, flour, bacon, lard, fruits, horses mules &c., are introduced and find market among them, the result might so surprise them that they would change their policy of making cotton to buy every thing else. They might enjoy more of the comforts of life and at a less expense. By a statement recently made, it appears the value of the bacon,

flour, lard, and some other articles that pass over the Vicksburg and Jackson rail road annually, is about one half that of the cotton crop of those counties accommodated by the road. These counties embrace much of the finest lands of Mississippi and are regarded among the richest. They are as capable of producing every thing wanted on the plantation, with the exception of flour, as Ohio, or any other State. When meat, corn, flour, and lard have been laid in, in Warren, Hinds, Rankin, Scott and Madison, one half the cotton bags are gone, and if a further necessary deduction is made for sugar, tea, coffee, plains for the force, and all house-hold and personal expenses very little if anything is left, or rather it is good luck if the two ends meet. This is the condition of things pretty generally throughout the South-west. The reasons given for making none of the supplies is, that it is easier to make the cotton and buy the necessities for consumption, than to make them—that it is economy—that money arising from the cotton made by a hand will buy twice as much meat as the hand can make in any other way. This certainly might be true, if there was no such thing as making more than a supply of cotton. But it is not difficult to see that the cultivation of this crop may be so extended that the more the planter has, the less money he gets. Labor is then mis-directed, it is worse than thrown away—every bag made is a bag out of pocket. The planter is like the frog in the pit that jumped up one foot every day and fell back two—the more he makes the less he has. If cotton growers would act on the principle of making whatever they want for consumption, or the greater part of what they want, they would secure about the same money and it would be their own. They would enjoy comforts, which they are now strangers to, and would cease to be hewers of wood and drawers of water as they now are. The most thrifty planters I know, are those that make their own hogs and have a little meat to spare to those living at the county seat—I wish we could all follow their example, we might grow rich, and bid the world, though reluctant, acknowledge our power.

Yours, &c.

CANEBAKE.

Mississippi, Jan., 1852.

SUBSTITUTE FOR SOAP.—A late French author recommends potatoes, three-fourths boiled, as a substitute for soap in washing hands. The use of this prevents chapping in cold weather and retains the skin soft and healthy.

Suggestions on Mr. Saunders' system of Cultivating Corn.

MESSRS. EDITORS:—I promised in a former number to offer a few suggestions on Mr. Saunders' system of culture, applicable to the up-country. It will be remembered that Mr. Saunders' land lies very level, so much so that he has to ditch it to carry off the water, and by deep plowing, manuring and high culture, with a subsoil containing marl, and well suited to retain moisture, together with his mode of planting, is the great secret of his success. I do not apprehend that we can obtain so great results as he has, from the fact that our lands are more *thirsty* than his, yet I have not the least doubt if we were to manure and prepare as he does, that we can raise from 20 to 30 bushels of corn per acre in this section. It is known to all that when we have frequent rains in June and July, we never fail to make an abundance of corn. The question then is presented to our minds, how can we remedy this evil (want of moisture)? to what extent can we by artificial means overcome this difficulty? The first thing I propose as a remedy is, to curtail our crops of corn and cotton at least one-third; the second is, to commence a regular system of subsoiling and manuring—and I would respectfully recommend the following course *to be adopted*: Divide your lands into four equal portions; plant No. 1 in cotton, No. 2 in corn, and No. 3 in wheat, oats, barley, rye, &c.: No. 4 to rest, to be managed *as hereafter directed*. Also, I would suggest that the farm be divided without respect to the quality of the soil, taking good and bad together.—And I would here state that I am thoroughly convinced, that 15 acres corn, cotton, and small grain is sufficient for any hand to cultivate, and I believe any farmer planting that quantity, in the course of five years, will be more prosperous than his neighbors who plant 25 acres to the hand without *manuring and subsoiling*. The land intended for cotton, should be thoroughly broken and pulverized, the rows laid off 3 feet wide and well manured—even if it should be necessary to purchase plaster and lime the first year to do it, which I have no doubt will pay well if conducted with prudence, and that 1200 lbs. of seed cotton can be raised to the acre, and annually increased if a regular system of manuring be *strictly adhered to*. And I would here remark, that all vegetable matter, except what is carried to the horse lots, cow lots, and hog pens, should be raked up and piled *the year previous* near the out skirts of the plantation, where it would be inconvenient to haul on account of the distance being too far from the residence, to remain and be perfectly decomposed to be applied to the next crop. And I am persuaded if this plan was adopted by planters, and regularly attended to the year previous, that we can make manure for all practical purposes both for cotton and corn.

I now come to the main point to be considered: Can we introduce Mr. Saunders' system in the upper part of the State to profit? and to what extent can we make it *practical*? I am well apprised of the difficulty in making any

change in old accustomed usages, and am prepared to hear the old cry of humbug! But at the risk of being denounced as such, I respectfully recommend the following plan to be adopted on a *small scale*, and not to be half done, but to be *well done*: Land intended for corn the present year, should be laid off four feet and a half wide, and bedded up with a twisting shovel, *close and deep*, and the last furrow to be split out with a long scooter, with wings on each side, to prevent throwing out the clay; and in February, to run the subsoil scooter in the middle furrow as deep as possible, and deposit the manure intended for corn equally in every furrow and *without stint*. This being done, list on the furrow with a twister, or some turning plow, and then run the subsoil scooter in the furrows round the list. It will be perceived that by doing this the subsoil is broken under and around the corn. When the time arrives to commence planting, run a small scooter in the list, with a block behind the plow to keep open the furrow—drop the corn by a compass 33 inches wide, or nearer, if the land is rich, then cover with a twister or turning plow. As soon as the corn is sprouted two inches long scrape off with a board or block. Let it remain till it is three or four inches high, and then run round lightly and throw the dirt from the corn. If the beds become hard or grassy, then run a furrow on top of the bed and list on it, which will both break it and kill the grass and weeds. I would then adopt Mr. Saunders system and run a furrow around the corn every 8 or 10 days until the row was plowed out completely. I would recommend that peas be planted about the 10th of May, by running a furrow close to the corn with the coulter, and dropping the peas between the hills, and cover with a board. The last working should be done with the cultivator by running twice in each row and following immediately with the hoes, stirring the earth around the corn and peas, which completes the culture. The land intended to rest, if desired for cotton the next year, I would bed it up in three feet rows, and plant in peas the last of June. Or, if intended for corn, I would bed it up in four and a half feet beds and plant it in peas and cultivate them after the crop is laid by. But if it should not be possible to plant peas, I would by all means have it bedded up, either for corn or cotton, as I have found by experience that turning over the vegetable matter and letting it remain until another year, benefits the land greatly. The advantage of bedding is, that all the vegetable matter is retained in the soil. Another advantage is secured by bedding, that the vegetable matter can be covered better by running a deep furrow in between the beds, and plowing out the beds with the turning plow, which covers it so much better for decomposition for the ensuing crop. But if planted in peas, I would adopt Mr. Saunders plan—open a deep furrow and list in the pea-vines and all vegetable matter, whether for corn or cotton, which I have not the least doubt is the best plan. Another important consideration in introducing Mr. Saunders' system in the up-country is, the saving the expenses of buying and feeding so

many horses. This is an important matter for the reflection of every farmer and planter. Mr. Calhoun said that a horse cost as much in ten year as a negro fellow, and I am inclined to think he was correct in his conclusion. And I am perfectly convinced that South Carolina could dispense with at least one-fourth of the horses she now feeds. What a saving there would be the present year in corn and other provisions for horses and mules, if we would only adopt Mr. Saunders' system. Besides the amount that is now expended in mules and horses, over and above a sufficiency for all practical purposes in the State, would, if sold, pay for all the corn which will be bought, necessary for the support for the present year. There is another item not less startling: It is estimated by "Franklin," an intelligent writer in the Laurensville Herald, that the number of horses and mules in the State number at least two hundred thousand—and suppose we dispense with the use of one fourth, say fifty-thousand which at \$50 dollars per head would be a saving of two millions five hundred thousand dollars. And let us suppose it takes fifty bushels of corn to each horse, and we have the amount of two and a half millions of bushels of corn—and for what?—to be consumed to make more corn to feed them another year, and exhaust our lands, finally. This is no idle picture. Farmers and Planters, reflect; examine your condition candidly, and see if there is not truth in the proposition. In conclusion permit me, respectfully, to suggest to the readers of the Farmer and Planter to try Mr. Saunders' system on a small scale, and see if it is practicable; and at the end of the present year let us compare notes and see if we can, by any *possible means*, improve our lands—fill our cribs and meat houses, and keep what money we get for our cotton from going to the west.

I am yours, &c. THOMAS B. BYRD.
Greenwood, S. C. Jan. 10, 1852.

Rail Roads in the South-West.

On the 1st of January ground was broken on the road from Jackson (Miss.) to Canton, the whole is under contract, and the stock all taken. The progress of the work will be rapid, and in the course of a year and a half it is expected the cars will be running. This is the first practical move in the scheme which is designed to connect by rail-way the cities of New Orleans and Nashville, called the Jackson and New Orleans road. It is an enterprise undertaken by the planters of the South west in connection with the merchants of the Crescent City, and of immense magnitude. It will afford a facility to cotton makers for getting their staple to market that will give a vitality to their business as yet wholly unknown. To those who have not seen the difficulties of hauling cotton bags to market through one and two feet of mud, it is not easy to estimate the value of rail-road transportation. As a consequence of these advantages a very great advancement may be expected in the value of lands, and a large increase of population and capital. In Madison county, a considerable part of the stock has been taken by the county,

and so confident are the planters that the stock will pay well, they are looking forward through the dividends of the road to an exemption in no small degree from taxes.

Another mammoth enterprise, something more than 500 miles in length, is on foot and the work progressing, which is to connect Mobile and the mouth of the Ohio river. These of course must intersect at some point in Middle Tennessee and by so doing to some extent give choice of market at New Orleans or Mobile; they must also intersect the Charleston and Memphis road, via Chattanooga, which will bring Charleston in the line of competition. There are, however, great influences brought to bear to give trade a direction to New Orleans and Mobile. The application of a donation by government to the Mobile and Ohio line removes all doubt of its success, and the interest manifested in it by the Alabama legislature gives earnest of its rapid progress.—To the New Orleans and Jackson road the Governor of Mississippi recommends the State to lend all its available resources until its completion: he advises all assistance to be withdrawn from other roads and given to this; he also recommends the public lands of the State whether donated, swamp lands, or received by forfeiture for non-payment of taxes, to be sold, and the proceeds applied to the enterprise. Under these circumstances that desirable link in the western chain of travel from Montgomery (Ala.) to Jackson (Miss.), has a gloomy prospect of completion. It will, we fear, be many years before the awful hiatus will be closed.

Until now the water courses have been exclusively the great thorough-fares. On them alone have towns and cities sprung up. But a new era is about to commence. The "mountains are in labor" and something more than a "ridiculous mouse" is to be brought forth.—Rail roads are to come into formidable competition with rivers, *even the father of rivers*. Fertile valleys and dismal swamps are to leap from solitude, are to become a garden of fruits and flowers, the home of comfort, intelligence and refinement. Agriculture is to sit, as she should do, *Queen* in the picture, and manufactures and commerce must be content to attend as maids of honor. Ten years hence, and who dare predict the change, the progress? No similar period has wrought such a change, as will be realized by him who lives to complete the next decade commencing now. And how stands South Carolina? The answer lies in a nut-shell; if by a course of judicious legislation, involving but a penny's expense, she open her beds of wealth and stay the tide of emigration turning from her soil, she may still continue to sit with majesty and power. No State in the confederacy has in projection so magnificent a system of rail road, accommodating, as it will when completed, every district and neighborhood in the State. The main trunk and branches will be in operation "*pari passu*" with improvements in other quarters, and will have a fair start in the race. The Geologists and agricultural chemist must nevertheless be set at work. They hold the golden key of her prosperity, perhaps we may say des-

tiny. As concerns the great body of planters in the State of South Carolina, it matters comparatively little what course rail roads out of the State take, their own best interests are subserved by their system at home, but it is vital to the city of Charleston that the cross chain be complete. It will give her great even incalculable advantages, that she must otherwise lose. And perhaps it is no disadvantage to the agricultural interests, that the State be a thoroughfare rather than a side path—no mean consideration that men of other States travel upon her public works, transport their produce on her roads, ship it from her ports, and supply their wants from the beautiful city of Charleston. These avenues to wealth are all open to enterprise.

TRANSPLANTING.—Lose no time now in transplanting whatever tree, shrub, vine, plant or flower, you may wish to introduce into your grounds. Do not be over anxious to secure a large space to your fruit or ornamental trees, for should you succeed in sustaining the life of the tree, you gain nothing in the end. The tree that is pruned at the top to correspond with the loss of root, will make a more vigorous and beautiful tree, in three years, than one that has been planted with all its original top, no matter how carefully taken up. It is owing to this that so many evergreens are lost. They are generally the worst taken up trees, and are usually planted with tops entire, because "tis a pity to cut off their pretty tops." Care enough is never taken to get all the roots of evergreens, and they should be planted with their roots in the same position as they originally came out of the ground.

We once saw one hundred cedars lost, that were taken up from a rocky soil, with their roots running almost on the surface, and were planted deep, in their new habitations, but they sickened and died. Continue to plant out raspberries, strawberries, &c. Remember, one year lost in planting, is so much lost to yourselves and your children, for the tree grows when you are sleeping.

We notice a beautiful incident at Burlington College, N. Jersey, where the venerable President, Rev. Geo. W. Doane, in commemorating All Saints Day, headed the whole college of boys, in his Episcopal robes, and after offering up prayers to the throne of Grace, each one planted a tree in commemoration of the day. It is a beautiful and instructive custom, and if each one of the college boys of the land would plant one tree a year, they would render important service to their country and receive the gratitude of posterity.—*Soil of the South.*

Plain Facts for Plain Farmers.

[Farmers are often complaining of the burthen of high taxes which weigh them down. But it is a notorious fact that ninety-nine hundredths of our farmers lose and waste more valuable manures on their premises annually, than would pay all their taxes for five years.

We think we hear some of our farmers say that we are mistaken, because they keep their straw and their cattle in a yard, and make two or three hundred loads of manure in a year. True, but they lose forty per cent. of this very manure by improper management of it.—Generally it lies on a steep side hill below their back barns, with all the water from the barn running through it for nine months, washing out twenty per cent. of its value, and carrying it into the nearest run or creek, and then they haul it into their fields in August, and spread it out for two or three weeks, on the top of the ground, allowing the sun to evaporate twenty per cent. more of its valuable properties, before it is plowed under ground, where it ought to have been before it was ever permitted to become dry. Here is the forty per cent. gone at two operations. Now the three hundred loads of manure are worth five hundred dollars to the field. Forty per cent. off of this is two hundred dollars loss.—*Ex.*

Croup—How to prevent it.

A correspondent of the New York Mirror, a medical practitioner; in an article on this subject, says:

"The premonitory symptoms of croup is a shrill, sonorous cough. The patient is not sick—has no fever, as often in a common cold—is lively, perhaps is even gayer than usual, his hands are cool, his face not flush, possibly a shade paler than usual. This solitary symptom may last for a few days, with no material increase or abatement, and without attracting any notice; suddenly, however, the disease, hitherto latent, bursts forth in all its fatal fury, and too often continues its ravages, unchecked, to the dreadful consummation. The remedies for this symptom of croup are simple, and in most instances perfectly efficient. They are: a mustard poultice, or a strip of flannel dipped in oil of turpentine or spirit of hartshorn, applied to the throat, and nauseating doses of Hive syrup, to be continued as long as the cough remains. By this timely employment of these mild agents, I unhesitatingly assert that a multitude of lives might be saved every week, that are now lost through negligence and delay."

Protection of the Agricultural Population.

"The public welfare, on the other hand, demands that an improvident debtor should not be driven, with a helpless family, to desert his home, and thus deprive the State of his services. Other countries have experienced the miseries which have resulted from the ejection of the agricultural population from their own shelter.—In a country like our own, where even strangers from abroad are encouraged to come here to seek new homes, we may well protect the dwelling places of our own population by such a humane provision as will at least afford to the improvident or unfortunate a place to lay his head—a shelter to protect his family from houseless penury. * * * * *

Here where a wilderness of land invites population, it becomes a matter of policy to hold out inducements to settlers, by giving them exemptions from beginning their wanderings anew.—It will add to the attachment with which a citizen regards his home, that it is sacred from all but his own household."

These sentiments, found in legislative proceedings, meet with a hearty response from us.—Such words from the mouths of our legislators are grateful to our ears. The term, agriculture, seen among our legislative proceedings enlists our attention, and excites a glow of warmth in our bosoms. The long trains of emigrants, that we have seen within the last three months, making their way through the Western States to Texas, would have aroused us if nothing had done it before. To behold vehicles of all descriptions, from the coarsely covered cart with its foot train, to the splendid equipage of the man of wealth, travelling on, day after day and week after week, littered in throngs, and, to the enquiry, "where from?" giving the answer, "we are from Carolina," is a spectacle that ought to excite reflection among statesmen. Something ought to be done, by those who have the power, to check the drain of population, that is more rapidly than ever impoverishing the State. We have now more abandoned fields than is consistent with the power and prosperity of the State. It should be the public policy to encourage the renovation of worn out lands, and the draining of swamps. Richer lands than the latter are not spread out upon the face of the earth, and when means shall be devised (as undoubtedly they may, if they are not already by Leeb's machine) for draining and supplying water, none will be found, in the opinion of those most competent to judge, more profitable than they for the culture of rice.

We do not advocate a national bureau of agriculture as do many of our contemporaries. We are aiming at no engine of political power. We want a State Agricultural Chemist, who will point out to the husbandmen the treasures of his own home. To use an idea of a rice planter known to almost every reader of these lines, there are "within this old State" mines richer than California, not of gold, but something more valuable, more precious. On Goose Creek are beds of marl perfectly *exhaustless* in quantity and within three or four miles of the Charleston and

Hamburg rail-road; they will therefore, when all the rail-roads shall be completed, be easy of transportation to every part of the State. We need to be instructed in their value. We want the wand of the chemist to point out to us other treasures in other parts of the State. In every instance so far as has come to our knowledge, when the directions of Mr. Ruffin have been followed in the application of marls, the expectations have been realized and his promises fulfilled. If the peculiarity of these marls has escaped the notice of the reader, we would recommend him to refer to the analysis which we have before published. Where these are to be had, there is little use for Peruvian Guano.

Suggestions.

We publish with pleasure the following letter from a highly respected subscriber, and one we would fain, and with pride, acknowledge as a constant correspondent of our paper, were it consistent with either his habits or inclination.—The name of our friend, which we suppress according to his request, would surely not in its popular estimation detract in the smallest degree from the value of any agricultural article to which it might be appended. It is but too true, that agricultural writers are generally too loose and indefinite in their details of experiments; and we shall be much gratified if our corps of worthy correspondents who, we are proud to believe, are not eclipsed by those of any other paper in the Union, would strictly attend to the excellent suggestions of our most worthy and intelligent correspondent:—Ems.

"MESSRS. EDITORS:—I enclose you my subscription for the "Farmer and Planter" for the current year. I have often thought of writing something for your paper in fulfilment of a promise to that effect which I believe I made when you first started it, but writing has become so irksome to me that for several years I have written nothing for the papers, and probably shall never do it again.

I read your paper with much pleasure and profit. I find, however, that your correspondents, like those of all agricultural papers, omit very many essential particulars in detailing experiments, and discussing modes of culture.—Every soil as well as every climate has its peculiarities, and hence there are as few general rules in the art of agriculture, and hence, also, its imperfections and slow progress. Swamp and up-land, clay and sandy land, require very different treatment; and even the different varieties of these lands must be differently treated.—And sometimes one degree of latitude added to the influence of the mountains, the ocean, or large streams, is of material importance. These particulars should never be overlooked in any agricultural statement or discussion. And the real reason why book farming has never had any repute, is because books written for one locality give instructions which, in another and perhaps not very remote one it would be fatal to follow, without such discrimination as ordinary farmers cannot or do not make. I consider that

the most thorough knowledge of European and Northern agriculture would not only be of no use here, but quite a disadvantage to one who could not refrain from attempting to carry out any part of it practically, except now and then some small matter. Their heavy manuring, for instance, would be absurd and ruinous here, where our hot suns and drenching rains carry off four-fifths of all we put on the ground, *the very first year*—in our light lands seven-eighths. So their deep culture and root breaking may do for a short and rapidly growing season in moist, rich, heavy lands, through which the rays of the sun do not penetrate deeply. But in our long seasons and inevitable droughts, and on thin, and especially light lands, I consider root breaking ruinous. I plough my lightest lands eight inches deep in the winter, bringing up sometimes two and three inches of subsoil (and that sand) on top. But in the culture of the crop, I never turn up more than one inch with plow or hoe if I can help, and would never break a root if I could avoid it. Nor do I believe that breaking roots does well any where or in any land. It may do less harm under some circumstances than others, but never actual good. All appearances to the contrary are, I think, fallacious, and will not bear the test of scales and measures applied to the products. If you could get your correspondents to detail *all the circumstances*, when they state experiments, and do the same, giving locality, when they discuss modes of culture, your readers would know better what applications of facts and theories to make on their farms, and some real progress might be achieved on a broad scale. But as farming articles are written now, for the most part, it is all hazardous to try to make use of any apparent knowledge we may acquire.

By-the-by having begun to write, I am running on almost to the extent of an article, and somewhat on the regular style, which was by no means my intention. If what I have written will help to fill up a column of your paper, I have no objection to your using it, but be careful to omit my name and my residence or you will get me into trouble. I never did put my name to such articles, and although I think the latitude of every article giving facts should be known, and the character of the soil—the exact place on the map need not be named; and the name of the writer being added always implies that he writes from vanity, and that his article is probably not worth reading. I skip over most of such. Yours, truly,

Pickling Meat.

Prof. Reinsque denounces the use of saltpetre in brine intended for the preservation of flesh to be kept for food.—That part of the saltpetre which is absorbed by the meat, he says, is nitric acid or aquafortis, a deadly poison. Animal flesh, previous to the addition of the pickle, consists of gelatinous and fibrous substances, the former only possessing a nutritious virtue; the gelatine is destroyed by the chemical action of saltpetre, and, as the professor remarks, the meat becomes as different a sub-

stance from what it should be, as leather is from the raw hide before it is subjected to the process of tanning.

He ascribes to the pernicious effects of the chemical change all the diseases which are common to mariners and others who subsist principally on salt meat—such as scurvy, sore gums, decayed teeth, ulcers, &c.—and advises a total abandonment of the use of saltpetre in making of pickle for beef, pork, &c., the best substitute for which, is, he says, sugar, a small quantity rendering the meat sweeter, more wholesome, and equally as durable.

REMARKS.—We fully agree with Prof. R. in denouncing the use of saltpetre in preserving our meat. Such poisons, and especially when they so nearly resemble common salt, or Glauber's salts, should never be brought into the midst of the family. The most fatal consequences have often resulted from it. Besides, the use of it does no good, and may do a great deal of harm.

Some persons have a practice of administering saltpetre to their cows once or twice a week, in order to keep off diseases, or in their language to keep them healthy. This should be strongly reprehended. It is soon enough to dose either animals or humans when there are symptoms of sickness. The practice is undoubtedly a fruitful source of disease, as each dose of saltpetre contains nitric acid or aquafortis which is a deadly poison.—*Ed. New England Farmer.*

Cabbage Culture at the South.

As the new year has just set in, and gardeners and housewives are beginning to look about, to see what to plant, to yield the greatest amount of nutritious vegetable food, it may not be amiss to call their attention to the culture of cabbage.

This valuable plant is not yet half appreciated here, either in its value as food or ease and simplicity of its culture.

All the varieties of cabbage, cauliflower, collard, broccoli, and kale, are derived by cultivation, from a wild, sea shore plant, indigenous to Europe.

The common collard of the country is so familiar to all, that it needs but little comment. Yet this, like all things that are common, is susceptible of great improvement. It braves with impunity the hot suns of summers, and the frosts of winters. It is generally cultivated without transplanting, but if it be transplanted deep in a rich soil, taking care to cut off the long tap root, it will make quite respectable cabbage in the winter months. So with cabbage. Its heading being entirely an artificial process, care must be taken not to let it get back to its natural state. For this reason it is safer to import our seeds than to raise them, as their tendency in a warm climate, is to get back to their long leaf. The early va-

riety of seeds are always imported, even in the northern states. These are chiefly valuable here as coming before the garden has begun to yield much for the table. Among the early varieties in most repute, are the early and large York, early Battersea or Drumhead, early French Ox-heart, early Sugarloaf, early Dutch, &c. These do not make as large heads as the latter kinds, but if grown quick, and on good soil, they are equally tender and delicious. There are many ways of starting the early cabbage. To those who have the means at hand, we would recommend starting them in a moderate hot bed, and transplanting into the open ground, as soon as the weather permits. Those who cannot do this, may plant them in the open ground, the first of next month, and continue planting until April. They may be planted in drills, thinned out, and transplanted; those not transplanted will head. Keep the ground light and mellow around the plants, by the free use of the hoe, and apply all the soap suds and leached ashes of the premises around the plants, during their growth. Plants managed in this way, in an ordinary season, will head finely, and be fit for the table in April or May.—The latter kinds, among which the following rank the best for this climate—Late Bergen, Drumhead, Brunswick, Green Glazed, Green Savoy, and Red Dutch for pickling—may be planted any time after the first of April up to the 1st of August. When transplanted, the soil must be deep, rich, and mellow; and if the stalk is *two feet long*, put it into the ground up to the first leaf; this will cause it to head firmly. There is much difference in the seasons, in making a good crop of fall and winter cabbage.—When the summer proves excessively dry, transplant and water freely, and continue to sow seed, that the garden may be stocked for the winter. When the leaves grow rank, without a disposition to head, tying the leaves up in the form of a head, will be of great service. But the late cabbage has an enemy greater than the sun, to contend with. This is the green cabbage worm; it commences its ravages just before the leaves begin to head, and if he is not destroyed, will eat the whole leaves into net work, before it can form the head. The best remedy we have ever found, is a free application of salt in the soil, and around the growing plants. Where this is not practicable, chickens cooped among the cabbage plants is some safeguard. The cut worm is another great pest to the young plant, but if a free use of gypsum is made on the cabbage ground, the cut worm will not molest the cabbage.

As we have often said before, the cabbage is a great feeder, and if manures are well turned under, quite rank manures may be applied. They also may be fed in their growing state. They require a great deal of potash. Give it to them from the leach barrel and wash tub. The same culture will also answer for the cauliflower and Broccoli. These are but the flowerheads of cabbages, and are considered great delicacies. The broccoli,

being hardier than the cauliflower, suits our climate best. Treated in all respects like the cabbage, it succeeds admirably. Kale is another variety of the cabbage, but is perennial. The Siberian is well adapted to our winters, and makes most excellent spring greens. The seed should be planted in the fall. There are varieties of cabbage, also, which bottom like a turnip, but so far as our experience goes, they are worthless in our climate, the head being inferior to the common cabbage, and the bottom not equal to the common turnip. Should any one wish to have seed from the cabbage, care must be taken to have them pure, as the collard seedling in the same neighborhood, will injure the heading qualities of the cabbage. When we consider the last amount of nutritious food that can be raised on half an acre in the form of cabbages, we are surprised that the white head cabbage does not oftener grace the tables of the rich and the poor, and that those having care of slaves, should not provide liberally of cabbage and other wholesome vegetables, for their winter and summer food. In Europe, it is considered good economy to feed stock upon head cabbages, the nutritious value of them ranking high. May not our white and black population aspire to feed as high as the hogs of Germany and France.—*Soil of the South.*

We take the following from the "Anderson Gazette," and freely subscribe to every thing said by the writer, except the keeping of lap dogs. They will do no harm, however, and may supply the place in the arms or lap of some old maid, or other woman, who would greatly prefer to nurse a *lielle* animal differing somewhat from a puppy.

We may not expect to raise sheep oven to the supply of wool necessary to clothe our families, whilst so many "curs of high and low degree" are tolerated by the laws of our State. And it really seems our legislators do consider it beneath their dignity to legislate on such subjects. We would, with all due respect, however, merely hint to them that it is suspected by some of their constituents, that they not unfrequently legislate on less important and far more ridiculous subjects:

Sheep Killing Dogs.

The only sure maxim to prevent dogs killing sheep is, before the meeting of the next legislature, let every member be prepared to give his own best views on the subject, which will finally ultimate in something like the following plan, to wit: Let a law be passed, taxing dogs to prohibition, with the exception of one to each farm, and a lap dog; the one dog to each farm to wear constantly about his neck a block of wood of 3 lbs. weight, and 12 inches long, fastened with a buckle and strap, so as to be easily taken off when necessary to use the dog about the farm, and will serve as an impediment to prevent the dog from running to catch sheep;

and if any dog is found running at large without such impediment, it shall be no offence in law to kill him.

If sheep are worth any thing at all, they are worth a great deal, and at present are as scarce as they were five years ago. And the assertion, beyond the implication of falsehood, that the loss of sheep by worthless, mischievous dogs, is more than the loss by yellow water and murrain both together.

Sheep raisers, to your posts, every man! and never be conquered by a host of worthless dogs, that at best are a nuisance to the country in general.

The following is taken from our excellent exchange the Lanrens ville Herald. How many B.'s can be found in South Carolina, or her sister States that have more generously supported us than has our own:

A Banter.

We call on our readers to peruse the following communication from our friend "B." It breathes the right spirit, and we trust that his laudable proposition will be embraced and will prove successful. We can assure all, that our friend is just the man to perform what he promises. How many such souls will "go and do likewise?" We shall see.

Our friend is right when he says "we feel an interest in the *Farmer and Planter*." We feel within us a State pride, which dictates to us that such a journal should be supported, and that handsomely and independently. We see, in States around us, Agricultural journals flourishing, and by the very liberal encouragement they receive, are enabled to improve and beautify their pages, and make them, not only instructive, but actually considered a necessity on a farm. And will not South Carolina sustain such a paper? Can our farmers learn nothing from it? Or is our soil so prolific that it produces spontaneously, or, at least, without the aid of any scientific applications? It is no supposition, when we say, that scarcely a number of that journal has been issued that did not contain one article, which, if properly applied, would have proved to be thousands of dollars advantage to a great majority of our farmers. We say again to our farmer friends, it is devoted to your particular interests, and depends entirely on you for its support.—Price \$1 only—clubs much cheaper.—2000 Subscribers wanted!

2000 NEW SUBSCRIBERS can be raised, for the *Farmer and Planter* for 1852. Farmers will you see the only

work in your Palmetto State fail, because the pitiful amount of one dollar from one tenth of your number is withheld.—There is nearly 30,000 farms in the State, and from the increasing disposition to know something about this Book Farming, I am satisfied that at least 2000 new subscribers can be raised for 1852.—That number, I doubt not, will insure its continuance, and improvement—though, it is true, that would be a small increase compared to what it should be.

I propose, therefore, to be one of 200 who will procure 10 new subscribers, or become responsible for 10 copies. I hope I shall be joined by at least 200, who will do the same. Remember, the amount called for is only one dollar, and you get full value in return. B.

Ground and Unground—Cooked and Uncooked Food.

In a communication from the Society of Shakers, at Lebanon, New York, in the Patent Office Report, we find the following upon the relative value of ground and unground, cooked and uncooked corn for feeding and fattening cattle, &c.

"The experience of more than thirty years leads us to estimate *ground corn* at one-third higher than *unground* as food for cattle, and especially for fattening pork; hence it has been the practice of our society for more than a quarter of a century to grind all our provender."

"The same experience induces us to put a higher value upon cooked than upon raw meal, and for fattening animals, swine particularly, we consider three bushels of cooked equal to four of raw meal.

Until within the last three or four years, our society fattened annually for thirty years, from 40,000 to 50,000 pounds of pork, exclusive of lard and offal fat, and it is the constant practice to cook the meal, for which purpose six or seven pot-ash kettles are used."

The Shakers are a close observing, calculating people, and go in for the practical realities of life; and therefore, in the economy of food, must be presumed to be good judges. For ourselves, we are disposed to believe the conclusions to which they have arrived are correct.—*Ed. American Farmer*.

REMARKS.—Yes, Mr. Editor, they are correct. This we have most satisfactorily proven. Would that our readers, especially those having daylight shining ominously through almost every part of their cribs, were disposed to come to the same conclusions, and act accordingly. For we scarcely recollect a time more imperiously demanding the strictest economy in the application of our means to the support of both men and animals. With every thing in the provision and provender line uncommonly high and alarmingly scarce, and with the worst prospect for a wheat crop we have witnessed in many years, it surely behooves us to husband

well our resources. Now, if by grinding, not only our corn but the cobs with it for horses, with the additional labor of cooking for cows and hogs, we can save a half or even a fourth, thus enabling us to extend our supply to the coming of grass, and thereby saving the lives of our stock, it will surely prove a profitable application of labor. But many will say we don't believe a word of it. How many of such ever tried it? If they have not, let them make a fair and honest experiment. Then if they are not cured, thoroughly cured, of their unbelief, we will not ask them to make another experiment. We are candidly of the opinion, based on experiment, in which we think we could not have been deceived, that one bushel of corn ground with the cob, *finely ground*, first in a corn and cob crusher, and then in a corn mill, and fed, first mixing it with moistened cut fodder, whether blades, hay or straw, will be found equal, if not superior in its effects on the horse, to five pecks of corn fed on the cob in the usual way, with the same quantity of fodderment. In feeding an ox or a cow on the meal and cut food mixture, instead of nubbins and long fodder, the difference in favor of the former mode will be found much more striking. We have fed to hogs corn in the usual way (on the cob), shelled, ground with the cob and made into dough, and the same made into mush, and have found a saving in every additional operation more than sufficient to repay additional labor and expense.

Will any of our subscribers make experiments and report thro' the *Farmer & Planter*.—Eds

Green Paint.

A majority of your readers are more or less interested in the use of green paint. I will therefore give you the component parts, as manufactured by some large establishments in our principle cities, and sold as *genuine*. To be sure, when first applied, it is a beautiful green, but soon fades, and whitens out, as might be expected, when you are informed that one of the principle ingredients is lime.

To make Paris Green.

The body is.....Arsenic.
To color, use.....Blue Vitriol.
To set,.....Baromit.

To make Verdigris Paint.

For a body,....Good Thomaston Lime.
To color,....Blue Vitriol and Baromit.
To set,.....Alam and a little salt.
Put up in tin cans, and marked,

"Pure Verdigris Paint."

This costs, per pound, to manufacture, about 12 cents, and retails at about 40 cents.

To make a green paint, "that is paint," pulverize Verdigris. First prime with a lead color; then two or three coats of Verdigris and Linseed Oil. This will last an age. To freshen the color, once in eight or ten years, apply a thin coat of linseed oil.

A durable and cheap paint for barns and out-buildings, is an.

Invisible Green.

To 5 measures of French Yellow, mix

1 measure of Lampblack, with Linseed Oil applied raw, *without boiling*, or any spirits of turpentine, which the painters will object to, especially if they work "*by the job*." Oil used in a raw state dries slow, but will wear much longer; and the spirits of turpentine is used to make the paint spread easy, and to dry quick. But it kills the life of the paint, in proportion to the quantity used; as may be observed by examining the knots in a pine board,—the pitch kills or eats up the paint.

One measure of Venetian Red added to the above invisible green, makes a very handsome paint for out-buildings, and we think the colors look none the worse as they fade. S. W. JEWETT.

—*N. England Farmer.*

Cheap Wash for Cottages of Wood.

For the outside of wooded cottages, barns, out-buildings, fences, &c., where economy is important, the following wash is recommended:

"Take a clean barrel that will hold water. Put in it half a bushel of fresh quick-lime, and slake it by pouring over it boiling water sufficient to cover it 4 or 5 inches deep and stirring it till slaked.

"When quite slaked, dissolve in water, and add 2 lbs. of sulphate of zinc, (white Vitriol) which may be had at any of the druggists, and which, in a few weeks, will cause the whitewash to harden on the wood-work. Add sufficient water to bring it to the consistency of thick whitewash. This wash is of course white, and as white is a color which we think should never be used, except upon buildings a good deal surrounded by trees, so as to prevent its glare, we should make it a fawn or drab color before using it.

"To make the above wash a pleasing cream color, add 4 lbs. yellow ochre.

"For fawn color, take 4 lbs. umber, 1 lb. Indian red, and 1 lb. lampblack, the lampblack, when mixed with water colors, should first be thoroughly dissolved in alcohol. Yellow ochre, Indian red, &c., are sold in dry powders, at a few cents per pound.

"To make the wash gray or stone color, add 1 lb. raw umber, and 2 lbs. lampblack.

"The color may be put on with a common whitewash brush, and will be found much more durable than a common whitewash, as the sulphate of zinc sets or hardens the whitewash.

Cheap Wash for Cottages of brick, stone, stucco or rough cast.—Take a barrel and slake half a bushel of fresh lime as before mentioned; then fill the barrel two-thirds full of water and add one bushel

hydraulic cement or water lime. Dissolve it in water and add three pounds of sulphate of zinc. The whole should be of the thickness of paint, ready for the brush. This wash is improved by the addition of a peck of white sand stirred in just before using it. The color is a pale stone, nearly white.

"To make it a fawn color, add 1 lb. yellow ochre, 2 lbs. raw umber, 2 lbs. Indian red.

"To make it a drab, add 1 lb. Indian red, 1 lb. umber, and 1 lb. lampblack.

"This wash, which we have tested thoroughly, sets and adheres very firmly to brick work and stucco, is very durable and produces a very agreeable effect.—*Downing's Architecture.*

Common Whitewash.—Slake half a peck of lime with boiling water, when slaked, reduce it to the consistency of white wash by adding boiling water, dissolve half an ounce of indigo blue in boiling water, stir that in; then add half a gallon of chamber-ley and stir the whole well, when the wash will be ready to be put on, and will prove to be a beautiful white color, and not subject to peel off. *Ex.*

Culture of Asparagus.

To the Editor of the American Farmer.

SIR:—I promised you some seed from the asparagus sent you last spring, and I think, if you requested it, an account of my mode of cultivation. The seed, I have for you, and refer your "*Lady Subscriber*" of Petersburg, and you also, to the 117th page of the "*Southern Planter*," December, 1841, No. 11 and 12, for the very best way to form new beds that I know of, viz: that there given by Gen. Wm. H. Richardson, of Richmond, Va. It is the one I adopted, and by which I have succeeded in raising such asparagus as I sent you, and I doubt if you ever saw much better. I vary in my treatment a little from him, because I use the river grass from the (salt) Potomac to a great extent, as manure.

Let any one plough out a trench as deep as they can, or wish, in the spring, strew some good manure all along its bottom, then set the roots a foot apart in the trench, and cover them with earth—work and keep clean during the summer, gradually ridging at every working—in the fall cut or bend the tops down and cover the ridge well with good stable manure and long litter, (I also cover all over with the river grass)—in the spring, take a plow (I use a two-horse) and split

the bed down to the roots, almost (or quite, if you can't help it)—fill the furrow with well rotted stable manure, (here I again use the "*sea ore*" to fill up,) and throw, with the same plow, the earth into and upon the furrow until it is well ridged up and the plowing extended as far each side of the centre as is necessary for keeping the ridge clean, then draw the ridge up just as high as can be done with the hoes, and you will have an asparagus bed that can be dressed up in the same way every spring in an hour or two, and which will furnish the very best asparagus that the kind planted can afford, from the simple fact that the sprouts have earth to grow through, and not the old-fashioned manure beds, as dry and hot as hot beds.

One row alongside of the garden fence is all sufficient for a family, but any number of rows can be made, say four feet apart, each one to be treated as above, fall and spring, manure scattered over the whole ground, which can be plowed in as the beds are plowed up in the spring.

Yours, &c.,

A. B. HOOK.

DECOMPOSITION OF TAN.—A subscriber at Orange C. H. Virginia, asks us how he should manage spent tan bark to render it useful as manure. Tan is, at all times, slow of decomposition; but it may be reduced either by mixing it with lime or with stable and barn yard manure. If by the first, on every cart load of tan, he should spread five bushels of lime, form his heap in this proportion, cover the top with a few inches of earth, and let it lie twelve months, then shovel it over, when it will be sufficiently rotted to apply to his lands. If by stable and barn yard manure, he should form a compost, layer and layer about, 2 parts tan, and 1 part manure, cover the top with earth, and let it lie a few months, occasionally turning it over to let in the atmosphere and excite fermentation. In either case, a bushel or two of salt and plaster would be of service if added to every 20 loads of the compost. When reduced, tan is an excellent manure. If obtainable, unslaked ashes would answer better than lime, used in about the same proportion.—*Am. Farmer.*

OCCUPATION.—Occupation cures one-half of life's troubles, and mitigates the remainder. A manacled slave working at the galleys is happier than a self-manacled slave who is without employment.

Good Old Fashions.

How often do we hear of "the good old fashions!" and when the adage is applied to communities who have become less moral, less economical, and less patriotic, we too can grieve for the loss of "the good old fashions."

But when we hear the saying applied to the perpetuation of ignorance despite of well established light, it seems to us to be as much misapplied, as to say good old milk, or good old butter, despite the acidity of the one or the rancidity of the other. We should not be surprised to hear some self constituted sage of a farmer object to having a good old mortgage paid off from his profitless farm, the interest on which has accumulated from his inertness. Why do not these wisacres for good old things, continue to use the good old wooden mould-board plow? Their grandfathers thrived by it, and why not they? Simply because the grandchildren of some of their grandfather's neighbors have seen fit to use "good new iron plows," and with them can do more work at less cost and with less personal labor.

It is true that we have fanatics in agriculture as well as in politics or religion, but still all the farms are not in the possession of such men, and some who are not fanatics have raised large crops at small cost, and not by the "good old way," but by improved methods which have been tested by many and proved to have merit beyond the former methods—but still we hear "the good old way" trumpeted as an argument against the use of any improvement. My father, says one, was a good farmer, and I recollect he told me forty years ago, that four inches was deep enough to plow, and he was an experienced man—he had then farmed for fifty years. Say to that individual that forty thousand farmers have since decided otherwise after careful experiment, and he will simply answer that he thinks his father knew as well as any of them, leaving you to infer that he knew as well as *all* of them, and he rather thinks he will follow "the good old way." Tell such a farmer that five bushels of bone-dust properly prepared will raise more turnips than ten loads of stable manure, and at a cost of less than the cartage of the manure, and he will tell you he prefers to raise his turnips with dung. The turnip crop of England having been doubled both in quantity and quality by the use of super-phosphate of lime, is no argument with him. Many farmers have

never yet used lime on soils requiring it, while others who had enterprising fathers, and who made themselves rich by the use of lime when the soil required it, has left a son who ruins the farm by continuing to apply lime long after it ceases to be needed, and he on being told that the lime has used up all the vegetable matter in the soil, and that he must renew it by applying muck, coolly answers that to apply lime is "the good old fashion," and he thinks his father knew, when he taught him to do it. Why do not such farmers use good old style shoes, six inches long, such as they used when they were boys? Why make all the changes consequent upon age, and treat their farms as if nature had stood still since their boyhood? We have some farmers, and some legislators too, who hug the good old fashions too closely for the interest of themselves and the community;—we have editors too, whose files record antiquated processes averaging ten years behind the times, but we also have farmers, legislators, and editors, who are willing to resign old fashions as rapidly as they become convinced of the superiority of new fashions, preparing themselves to judge of their merits by the facilities afforded by study. We recollect hearing once of an old fashioned salt dealer who smuggled a cargo on shore on the east end of Long Island, after the duty had been taken off, and brought it to New York in wagons.—Probably this was an old fashion of his, which has since been altered by others. What is the average crop of corn per acre in the United States? Do not more than ten thousand farmers raise double the average crop raised on similar soils to their own, by superior culture? Do they follow the old fashion to do it, or do they adopt some improved method, and if so, is not ten thousand a sufficient number to authorize some one old style farmer to alter his plan? Not always, for like fishermen on a bridge who throw their lines in the very spot the last fish was caught from, they move west, where the large crop was raised, sooner than render their own farms capable of doing the same thing, at an expense scarcely greater than their travelling expenses in looking for a new farm.

These are not dreams, but truths; there are now thousands of farmers who will not believe a truth after it is printed, and do not take an agricultural paper nor read an agricultural book. It is a sorry truth that not one farmer in ten through-

out the country read anything on agriculture, and some of these very men read everything on politics, and trust to papers for an understanding of the whole science of government, but not for the science of farming.

Why do not these admirers of good old fashions in agriculture, prefer doctors, lawyers, and divines who never read anything but politics? Any of these pursuits may be as easily followed without reading, as farming, still none of the old fashioned phalanx would employ them if unread in their separate studies.

Let us beg of our readers who are philanthropic, to give a small portion of their time to those of their good old fashioned neighbors who do not read, and induce them to attend Farmers' Clubs, and if practicable to read. Every increase of crop adds to the prosperity of the nation, and it is a duty we owe to our common country to advance her best interests.—We do not write for profit, as all those who ever published an agricultural paper and paid their bills must have discovered, but we do write under the hope of exciting many engaged in farming to improve their methods, and this can only be done by our readers acting for us with their non reading neighbors. Help us, we pray you; help yourselves and advance the common good of all.—*Working Farmer.*

HOW ANIMALS COOL OFF.—The following article, by Dr. Vanderburgh, will surprise some of our readers who may have overlooked the facts stated. We have often been amused by finding a number of amateur farmers who did not know that cows and other ruminating animals had *no upper teeth*—and one eccentric friend, for the purpose of convincing his associates that man was not an observing animal, proposed that the company present should pull off their boots, when behold, all present except himself, had the soft side of their stockings toward their boots, his being turned with the soft side toward the foot. His argument for this change was, that he thought more of his foot than of his boot, and that as the foot and not the boot wore out the stockings it would wear twice as long, and was more comfortable when so worn. Many have doubtless worn their stockings nap side out, and believed that oxen, dogs, &c., &c., could sweat like a horse.—*Eds. Working Farmer.*

"The genus homo and the genus horse have a double privilege of refrigeration

while all other animated beings have but one. You may be surprised to learn that no other beings sweat except men and horses, and hence no other beings can cool themselves, when hot by perspiration through the skin. The confirmation of this fact is found in the whole range of comparative anatomy, where nature has furnished examples on the most extended scale of magnitude, in the whole animal world, in the largest as well as the smallest of beings.

In all the pachydermata, or thick skinned animals, except the horse, are found no pores in the skin that exhale heat by perspiration, the envelope on all these animals being only a secreting surface, like others of the internal surface of the body. All the cleft foot species, including those presenting feet with toes rounded and unprovided with claws, the elephant, rhinoceros, bison, mammoth, mastadon, buffalo, ox, swine, deer, as well as the lion, tiger, bear, wolf, fox, birds, squirrels, dormouse, opossum, racoon, all alike offer the same example as the dog, that they have no other means of cooling themselves when hot except through the medium of the lungs by respiration.

The farmer drives his oxen in the summer heat, with great care, and when they open their mouths and thrust out their tongues, and pant to exhale the heat generated by exercise, if he does not stop their motion they die with the heat that accumulates within them. His hogs, too, must be driven with more care, and if they are allowed to grow too fat in hot weather, they often die, panting, in a state of repose, when in the shade.

All these animals with the exception of the elephant and the rhinoceros are covered with hair and fur, or feathers and down, which varies with the climate.

The fur and down tribe throw off their rich covering at the approach of spring, and revel with their fellows in the summer sun, and, as the autumn returns, they are furnished with their furs and down, in anticipation of the winters' frost.

In health, these animals have a large deposit of fat beneath the skin; fat is a mixture of two or more ingredients, which differ in consistency—in most instances they are stearine and margarine, along with a liquid oleine; as the weather cools these oils and fats condense, and as they solidify they become non-conductors of heat, and the heat accumulates beneath the skin, it generates the delicate furs and down for winter's use; and in the spring, as the temperature

rises, the oleine becomes volatile and sheds them again for the summer's heat: so that this simple law for the generation of heat, in animal, as in vegetable life, is graduated by the fluctuations of the season and the revolutions of time. The familiar example of the dog, who generates his heat at the expense of his substance, as he increases his speed, and, having no pores in his skin, he multiplies his respiration in the ratio of motion, as the only means of keeping himself cool, and having no perspiration to check, he plunges into water with impunity, and returns refreshed, when men and horses submerged in a similar condition would suddenly check perspiration, and if they survived the shock, it would be to die with acute or chronic inflammation.

Discovery of New Farms.

Lawyers have known for a long time that a landholder owned ever so far down below the surface. But farmers have never seemed to suspect, that their deeds gave them any right to more than about six inches of the surface. Nobody hardly has thought of looking deeper than that, except the diggers of gold and water. We have all heard of the classics being covered all over by the prosy homilies of the monks of the middle ages; in consequence of which, generations have been content with the comparatively worthless surface parchments, in ignorance of the rich deposits beneath. Our agriculturists have had a similar experience, till now, when the sub-soil plow is revealing to them treasures before unknown. Discoveries in the earth are keeping pace now with those of the sky, and a new earth is opened to the cultivation as a new heaven is to the astronomer. The following conversation at the Farmer's Club, cut from the *New Yorker*, brings some intimation of the news.

Dr. Underhill.—I omitted speaking of another great source of phosphate of lime, and that is one which some few farmers have hit upon. I mean that part of the farm which lies six inches deep under the surface. There, since the deluge, lies undisturbed the fertilizer, usually hard. Roots of the grains and annuals cannot penetrate it. There it is and has been accumulating for thousands of years, insoluble, except when roots apply themselves to it. Not one farmer in ten ever plows deeper than five inches. The roots cannot get at the mine below—it is too hard. He cannot afford to buy guano or bone, but he can afford a sub-soil plow. Let him go down fifteen inches into his good farm below, and he may have a new farm good for fifteen years to come.

I never thought until this year, that my loose, sandy, gravelly land wanted sub-soiling! It is so very loose that I almost waded in it. But nevertheless, this year I have sub-soiled 12 to 14 inches

deep, and my corn on that tillage has given me a double crop. I found the bottom of my very loose top soil hard packed, the annual plants could not put their roots through it. My double crop has succeeded in spite of a pretty severe drought. I have many years always plowed to the depth of from eight to ten inches, but this season I have resorted to the farm which lies under mine successfully.

Dr. Church.—Is it necessary to sub-soil every year?

Dr. Underhill.—I think not: but I mean to sub-soil every acre I cultivate at all. It operates also as a drainer. It also receives the fertilizer from the atmosphere. The store of manure is our earth; the second is the atmosphere. That from the latter enters the earth by means of dew and rains—by dew even in times of drought—when a deep tilled soil can take it in, while a shallow one cannot.—Up to this day the shallow work prevails. Nineteen out of twenty are so abused.—A farmer who can neither buy books nor attend Farmers' Clubs, can nevertheless plow deep. Let him try it, and if he fails, let him come to this Club and tell us so.—*Lewis County Republican*.

Green and Unseasoned Fuel.

BY PROF. J. J. MAPES.

If farmers would ask themselves why charcoal will answer a better purpose than wood for melting iron, they would understand by analogy why well seasoned wood is more economical for fuel. If charcoal be slightly moistened it will be found to have no superiority over wood for any use as fuel. Three cords of green or partially seasoned wood will not warm a room for as great a length of time as one cord well dried, and entirely free from moisture. The rationale is simple, and although to be found in books, is nevertheless true; it may be thus understood:—"Substances contain heat as latent in proportion to their bulk." Thus, if we pour a cubic inch of alcohol on our head, and then fan it, the one cubic inch assumes the form of vapor and becomes 1700 cubic inches, capable of receiving a proportionate amount of heat, and therefore takes heat from the nearest hot object, the head, causing it to be cool. Water placed on the head and then rapidly evaporated, will cool the head from the same causes. It may now be understood that a single pint of water contained in a piece of wood thrown on the fire, will first become 1700 pints of vapor, and that this vapor will increase in size one five hundredth part of its bulk for every degree of heat added, so that it travels up the chimney, carrying with it as much heat as would warm all the air

in a large room for a considerable length of time.

Let any farmer weigh a green and a dry stick of the same size, and he will be convinced that a very moderate stick may have an extra weight of eight pounds, and therefore contains one gallon of water.

If an iron net work be placed above a wood fire, and a number of shallow pans upon it, containing water, so that a large amount of vapor is continually rising, this vapor will so perfectly absorb the heat, generated below, and carry it up the chimney, that the heat radiated in the room will be too slight to warm it, and similar effects must take place from the use of green or only partially seasoned wood. Indeed, wood may be rendered just sufficiently moist to permit its burning without radiating any useful quantity of heat in a horizontal direction into the room.

Many suppose that green wood may be burned in stoves with profit. This is also an error, for the vapor will pass up the pipe carrying with it the heat, and preventing its being received by the iron and radiated into the room.

With these facts in view, should not every farmer provide a dry place for fuel, and have a stock at least sufficient for a year's supply always on hand?

The use of air-tight stoves throughout the country is diminishing the consumption of wood, and the supply of potash to the soil is comparatively decreased.—These peculiar kinds of stoves will lessen the bulk of ashes by leaving them for a longer time than is usual in ordinary stoves, and indeed so large a portion of the lighter part is carried off with the currents of air and smoke, that the remaining portion is nearly *pure potash*, and it should be dissolved in water before application to the compost heap. Large air-tight stoves will burn peat peculiarly well, and indeed if rapidly filled and provided with a valve to shut off their connection with the chimney at a proper time, they may be emptied every morning of a bulk of *peat charcoal* equal to their size, and highly valuable, both as a fertilizer and a deodorizer.—*Jour. of Agriculture.*

GARDEN WORK FOR MARCH.

PREPARED FOR THE FARMER AND PLANTER.

Kind Reader—You would say 'twas a late beginning for gardening, but 'tis presumed that during January you had your garden well manured, not with

fresh stable manure, but with that from the cow lot, well rotted; fowl house manure is very good; or stable manure will do if well rotted and applied early, a little leached ashes will not hurt. If you did not spade very deep, say sixteen or eighteen inches, then you have committed a great error that will reveal itself before the close of the summer. Broyle's sub soil plow is the best tool that I have met with for such work. Where it can be used, the work is done in less time and more effectually.

Irish potatoes that were planted in January or February should not have been covered with leaves or straw, as is often done. Let them remain exposed to the sun till about the time they commence coming up; then if there is appearance of frost, protect them with leaves or straw. As soon as the ground begins to get warm they might be well covered—pine straw is better than oak leaves.

Peas that were planted early should now be stuck, not with *split pine sticks*, but with sassafras, or other brush. If early corn has not been planted, it should be done at once. The Oregon is a good kind for early use; it comes early and has fine ears. This may be planted till the middle of July.

Beets will do planted now, if it has not been done. The turnip is the best, make the ground rich and spade deep.

Carrots should be planted now; they will grow as deep in the ground as you will spade and manure. I find it very convenient to plant two rows near each other, say about eight inches, and leave a space of about fifteen inches between the next two; it gives better room to pass and cultivate. &c.

The first favorable weather in this month the various kinds of bush beans might be planted, if the weather will not permit until the middle or last of the month. The thousand to one is one of the best bush beans cultivated. It is not so early as some of the other kinds.

Plant early bunch squash. A little stable manure will do very well here.

If you have not a good asparagus bed, get the seed and sow them at once. Sow them in drills about a foot wide; manure and work well, and by Dec. or Feb. next they will do to transplant.

Sow artichoke seed in rich beds—transplant in August.

Spinach is a delightful vegetable.—The round leaf is best; it should have been planted in February, but will do now. Sow in very rich land and work well.

Transplant the early kind of cabbage; but few of any other kind should be transplanted till June and July; if they are, you will have no cabbage when you should have, fall and winter. I have now, 15th Feb., very fine cabbage, transplanted in June and July last. If the early kinds are transplanted in March, they will head in May or by the middle of June, before the weather gets too hot and dry. Transplant lettuce in warm borders of your beds, well exposed to the sun.

By the last of the month plant a few watermelons, muskmellons, and cucumbers. Be not afraid to buy a few seed—'tis a good investment. You can have a fine garden of vegetables before cotton wants hoeing. B.

Query.

MESSRS. EDITORS:—Will you inform your readers what has become of your correspondent, "Broomsedge," whose well written and interesting communications afforded us so much gratification in times past. I have looked over the last numbers of your valuable paper in vain for his welcome articles, which never failed to please and instruct.

I agreed with him in his controversy with Pry, and trust he has not flared up like some old fields in this neighborhood, nor been scattered like the ashes of "J. P. B's." old fence row by the winds of that controversy.

If any thing of the kind has happened to him, I trust that he, like his namesake, will put up from the roots and afford us again pleasure and instruction.

ENQUIRER.

REMARKS.—We are unable to give a satisfactory answer to "Enquirer." It is the nature of the plant to become dry and inactive through the winter. We trust, however, that "Enquirer" and the March winds will wake our old friend up. If not, Pry has a torch in the present number of our paper that will arouse him.—Eds.

MCADAMIZED VS. RAIL ROADS.—In our present number will be found an interesting communication, which was prepared for the press in the spring of 1848, but withheld by the author, from an impression that the novelty of his views, and the radical change of policy they recommend, would fail to attract a candid examination at that time. But seeing in the public prints of a very recent date, that a company has been organized in the city of New York to make a practical

application of his principles, he has consented to their publication. We invite the attention of our readers to this article from our old friend "PRY." In consequence of the rail road mania that prevails to some considerable extent in the State at this time, we have said more on this subject in our present number than usual. We expect to have a real bona fide rail road to this place, on its way to Knoxville, before long, if our friends at Anderson should not take it into their heads to build us a plank road, in spite of us.

EDITORS' TABLE.

AGENT FOR THE FARMER AND PLANTER.—We have recently appointed Mr. H. P. DOUTHET, of Tuscaloosa, Alabama, our agent for procuring subscribers to the FARMER AND PLANTER, in Alabama, and other States, in which he may travel. He is authorized to make collections and to give receipts for the same.

SEABORN & GILMAN.

Reaping Machines.

Since our last number went to press we have received from Mr. J. S. Wright, of Chicago, Ill. a copy of an English circular relative to a trial of machines (Hussey's and McCormick's) subsequent to the match at the Worlds Fair, from which we make the following extract. It will be recollected by our readers that Mr. McCormick's received the premium at the Fair:

"A paragraph inserted by Mr. H. in the London Times, stating that his machine had not been fairly tested with others, drew out a challenge as was intended. Such was the excitement at the trial, that notwithstanding the rain fell in torrents all day, 800 tickets of admission were sold, and about 400 privileged persons and members of the Society were admitted free. The result was wholly in Mr. H.'s favor, yet in so important a matter the Committee did not like to decide without another trial under more favorable circumstances, which was had on the 27th with a like result.

To the above we add the following, "signed very numerously by the principal Agriculturists wherever the machine has been exhibited."

"Having witnessed the working of the American Reaping Machine, invented by Mr. Hussey, of the United States, and now the property of Messrs. Dray & Co., Agricultural Implement Makers, London, we can testify to its merits, and say that it is clean and effective in its operation, and, unquestionably, the most desirable implement that has ever been introduced to the farming community of this country."

We believe neither of the above mentioned machines have been used in our State. We trust, however, it will not long be the case, that we are behind every other State of the Union, in adopting in our agricultural operations the improvements of the age—evidently the effects of the want of a proper appreciation of agricultural papers.

COTTON CHEMICAL COMPOUND.—Our subscribers who are not afraid to buy manure, or to make a deposite in the best bank in the world—

a bank of earth—are referred to the advertisement of Mr. KETTLEWELL, in this number of our paper. We have recently seen in the American Farmer, certificates from highly respectable gentlemen of Virginia and Maryland, calculated to convince the most skeptical of the valuable effects of Mr. K.'s chemical manures.

The high wagon freights we are compelled to pay on all heavy articles brought into the interior of the State, has thus far excluded from the up-country, Lime, Gnano, Plaster, &c. But we trust when our rail roads are completed, and consequently freights greatly reduced, this will no longer be the case. When our farmers become liberal enough to purchase and freely apply to their fields all such renovators, including the proven valuable compounds of Mr. Kettlewell—then, and not till then, may we expect any marked and permanent improvement, in our much abused and greatly exhausted soils.

OBSERVE THE GOLDEN RULE.—We are pleased to see our articles copied into our exchanges, *if they have due credit*—not without.—Such things sometimes happen inadvertently, but when they are of frequent occurrence, we may be excused for coming to a different conclusion.

NORTON'S LITERARY ALMANAC FOR 1852.—It having been mislaid we neglect to notice in our January number the receipt of this work.—In addition to the usual calendar for each State in the Union, Mr. Norton gives much interesting and useful literary information. First, a sketch of literature of 1851. An account of Almanacs and almanac makers, from the earliest times.—Of News Papers in the United States. Also plates representing the Smithsonian Institute, the Boston Athenaeum, the Philadelphia Library, the New York Society Library, and the Astor Library with a history of each.

But the most interesting part of the work to our readers will be found under the head of "Agricultural literature of the United States," and from which we should be pleased to make extracts would our limits admit. The work can be seen at our office.

OUR EXCHANGES.—Since our last, we have received the first and second numbers of vol. 2, of the JOURNAL OF AGRICULTURE—a "new comer" to us, and one which we have with pleasure placed on our exchange list.

The Journal is edited by Wm. S. King with J. J. Mapes and Allen W. Dodge, associate editors. These are names that will guarantee a *first rate* paper to all readers of agricultural works. published at Boston by Bazin & Chandler, Royal octavo, 32 pages, semi-monthly at two dollars per annum.

THE PENNSYLVANIA FARM JOURNAL.—Published at Lancaster, Penn., by A. M. Spangler, edited by S. S. Holdman, royal octavo, 32 pages, monthly at one dollar per annum.

THE WESTERN AGRICULTURIST.—Edit-

ed by W. W. Mather, and published by S. Meadary, Columbus, O., octavo 16 pages, semi-monthly at one dollar a year.

THE GRANITE FARMER.—Edited by T. R. Crosby, M. D., with a corps of able correspondents. Published weekly at Manchester, N. H., by J. O. Adams, at one dollar and fifty cents a year.

THE NEW ENGLAND FARMER.—Published monthly in Boston, by Reynolds and Nourse, and edited, since the death of Mr. Cole, which we failed to notice at the proper time in consequence of our absence, by SIMON BROWN; Fed. Holbrook and H. T. French, associate editors. A handsome octavo of 48 pages, with *superior* plates, at one dollar per annum.

THE WOOL GROWER.—Which every man that raises half a dozen sheep should subscribe for and read. T. C. Peters, editor and proprietor, Buffalo, N. Y. A neatly printed octavo of 24 pages, monthly at 50 cents a year.

THE JOURNAL OF THE N. Y. STATE AG. SOCIETY.—This is an interesting monthly record of the proceedings of the society.

THE WISCONSIN AND IOWA FARMER.—Edited by F. R. Phoenix and Mark Miller, and published monthly by Mark Miller, at Racine, Wis., and R. Spaulding, Dubuke, at 50 cents a year, octavo 24 pages.

THE PRAIRIE FARMER.—Devoted to Western Agriculture, Horticulture, Mechanics and Education, published monthly at Chicago, Ill., by Wright and Haven, at one dollar per annum—40 pages octavo, and edited by J. S. Wright, J. A. Wight, and Luther Haven.

We shall not attempt a discrimination in the above list of our exchanges. Suffice it to say, they are highly commendable and valuable works, devoted principally to the diffusion of agricultural and horticultural knowledge throughout the States, and those contiguous to, where they are published, and may be read advantageously by the farmers and planters in every state of the Union. We invite our friends to call at our office and judge for themselves. We have so arranged that there will be no difficulty in placing the hand on any one of them without a general search and turning over of things in the office. We will receive subscriptions for, and order *any* of our exchanges with pleasure.

THE ILLUSTRATED FAMILY FRIEND.—We have at last received the eleventh number of this excellent family paper,

noticed in a former number of the F. & P. and with pleasure again place it on our exchangelist. So much having been said in its favor by other papers renders it unnecessary for us to say more than to recommend it to our readers as a decidedly superior paper to anything of the kind we have seen either north or south. The editor desires the fact to be known, "that he would like to exchange with every newspaper and periodical published in the southern states." Published weekly at Columbia, S. C., by Godman & Lyons at two dollars per annum, or six copies for ten dollars, in advance.—S. A. Godman, editor.

"Of all the Hebdomadals, Monthlies, Diurnals, What press can a fairer or healthier send? Of the twenty-eight thousand American Journals, Than this the ILLUSTRATED FAMILY FRIEND."

THE CHILD'S PAPER.—We acknowledge the receipt of this handsomely got up paper, which, to use the language of our friend of the Edgefield Advertiser, "is what might be called a pretty little paper, with pretty little lessons and pretty little pictures for pretty little children." Published by the American Tract Society at one dollar for 10 copies to one address. Published monthly in New York and some of the other principle cities in the union.

COTTON—CHEMICAL COMPOUND MANURE FOR THE IMPROVEMENT OF CROP AND LAND.

TO THE PLANTERS AND AGRICULTURISTS OF SOUTH CAROLINA.

THE undersigned has been long satisfied that his "Chemical Salts" were the best, most durable and cheapest manure for the growth of Cotton, now offered to the public. He was equally aware also, that such enterprises are looked upon with doubt and suspicion—the article too frequently denounced as an imposition—and the originators as impostors. In the importance which he has always attached to his Salts as a Cotton manure, the undersigned has been sustained by the most distinguished, as also, by the most accomplished practical Chemists of the country, who have frequently enquired why he did not press his "Salts" among the cotton planters of the South. This the undersigned has not done for two reasons—first, because his enterprise was fully and successfully sustained at home, where his character and integrity was well known; and secondly, because he has determined that his "Compounds" should have a fair trial by some one who had the faith to make an unsolicited experiment. This has been done by an entire stranger to the undersigned, and who has voluntarily handed him the letter containing the extracts which follow; and for his faith, enterprise and generous confidence, the undersigned takes this method of publicly tendering to that gentleman his unaffected thanks and gratitude. In conclusion, he would barely remark that if Mr. Chisolm had used the salts in the hill with the corn, and then weighed or measured the product, he would have had a most satisfactory result. These salts do not show their value in the stalk of the corn, but in the ear.

With the following extracts from the letter of Robert Chisolm, esq., of Beaufort, he quietly submits his claims to public patronage, to those who think that there may be progress and enterprise in agriculture as well as in other branches of the industry of life.

Price of the "Renovator," \$3 per barrel; Bi-phosphates, \$4 per bbl.; Potash and Plaster, \$2.50 per bbl. Plaster, \$1.25 per bbl. ground.

Freight from 25 to 40 cents per barrel; to Charleston or Savannah. Terms, under \$50, four months; over \$100, six months, for acceptances.

The expenses of transportation and putting on the ground is less than hauling out barn-yard manure, if the cost of teams and hands is considered. Pamphlets of explanations will be given to those who desire and write to the undersigned.

JOHN KETTLEWELL.

Office at the Wholesale Drug store of Ober & McCoukey, corner of Lombard and Hanover streets. Factory, Federal Hill, Baltimore.

Extracts from the letter of Robert Chisolm, esq., of Beaufort, S. C., to J. Kettlewell, late Kettlewell & Davison, in reference to his Chemical Salts.

(Copy.)

NEAR BEAUFORT, January 10, 1852.

Dear Sir:—I suppose that you would be glad to hear from me the results of my trials with your Renovator the past year, and I am happy to say to you that I have been quite pleased. As the past summer also, was, I thought, quite too dry to give your Renovator a fair chance, I took no account of my experiments by weight or measure as I should have done, had I thought differently. My first experiment was upon the yam variety of the sweet potato, the tubers for seed, the land was the best for this emacting crop that I have, (and very good) rested unpastured one year after cotton manured. Two furrows of Davis' horse plow were run, making what we call a "list." Upon six of these rows 150 feet long, the Renovator was spread at the rate of 3 barrels per acre without any other manure, and upon the rest of the field (12 acres), in this crop, compost, made in my stable and stable lot, was spread at the rate of 40 loads, half drawn by 2 oxen and half by four oxen about a quarter of a mile, per acre of 300 by 150 feet; seed, preparation, cultivation and everything were exactly the same, and when the potatoes were dug, five of the rows dressed with the Renovator yielded rather more than one of these rows and five rows dressed with the compost, just by the side—three barrels may appear a large dressing, but forty ox-cart loads of good compost are not either a light or cheap application. Upon corn, I could not see any difference between the crop dressed with one barrel per acre and that manured with 8 ox cart loads of poor cow-pen compost. On Cotton, I took one line 105 feet wide by 420 long through a field of poor, cold, stiff clay soil manured at the rate of 20 ox cart loads of fair compost per acre, hauled a very short distance; the first 105 feet square was dressed with $\frac{1}{2}$ barrel of the Renovator, the next quarter acre had no manure, the third had another half barrel Renovator, and the fourth had also nothing. One row 5 X 105 was sown with Shinney peas. The result is that the 2 quarter acres, manured with the Renovator have the cotton so much better grown, and better fruited than even the lands on both sides manured with the 20 loads of compost that the difference is very apparent even to-day, though the cotton has been killed 2 months. I tried it on my other cotton plantation which is on fresh water (this one being near the ocean), and with similar results, viz: So little benefit to Corn that my Overseer told me that you had cheated me by selling me for manure what was worthless; but he afterwards told me that the application to cotton, though manured $\frac{1}{4}$ acre to one barrel of the Renovator was very decidedly beneficial when compared with surrounding

land which was freshly cleared but unmanured. I saw in the summer some cotton manured with Guano at the rate of 200 lbs. to the acre and thought it decidedly a failure, but the planter informed me lately that at the end of the season it had improved very much.

My present Overseer spent a part of the summer near another planter who tried Guano pretty largely, and he does not report at all favorably of it. I showed my cotton experiment to him, and he fully agrees with me in its very marked benefit.

The one row of peas did nothing, most probably owing to the too dry season, as the same was the case in other very rich lands. I think that the past season was too dry for almost any manure, especially a concentrated one, to have its full effect; but the renovator certainly proved highly satisfactory on Cotton and Potatoes. Corn is, with us, almost too quick growing a crop, to receive as much benefit from its application, as the other crops mentioned—which grow until killed by frost in November or December.

I am so much pleased with the results of my experiments, that I intend to use as much of the Renovator as prudence will justify me in buying.

What is your price per ton per 100 to 200 bbls? [Signed] ROBERT CHISOLM.
Feb. 4, 1852, 2-r.

ANDRÉ LEROY,

Nurseryman, at Angiers, France.

RETURNS his thanks for past favors, and begs leave to inform his friends and the public in general, that his catalogue for 1851 is now ready, and will be had on application to his agent, Mr. E. BOSSANGE, 138 Pearl street, New York. He offers for sale a large collection of the finest Fruit, Forest and Ornamental TREES of all kinds, SHRUBS, ROSES, &c. The superior quality of his trees is already well known in the United States, and the experience he has in packing up Trees to be sent abroad, gives him a noted advantage over all other Nurserymen. Orders had better be sent in early, as although his Nursery is the largest in France, the number of some new kinds of trees are limited, and some of the last orders sent last year, could not all be executed. The terms, prices, charges and all desirable information will be found in his catalogue. The Trees will be shipped to the care of his agent, who will attend to the receiving and forwarding. For further particulars, and for the catalogue, apply to E. BOSSANGE, 138 Pearl street, N. York, Agent.

Feb., 1852. 2-p.

All agricultural papers will insert the above three times, and send the bill and a copy of each paper to E. BOSSANGE.

Land for Sale in Pickens District.

THE Subscriber offers for Sale the Tract of Land on which he now resides, lying in the fork of Seneca and Tugaloo rivers, on the main road from Pendleton to Camsville, and twelve miles from the former place, containing nine hundred (900) acres; about one hundred (100) of which is Beaver-dan Bottom. The place has on it a large and comfortable Dwelling House, a good Kitchen, and all other necessary out buildings. The site is a beautiful one, the water fine, and the place as healthy as any in the District. To a purchaser the crop now growing on the place will be sold, if desired, on the most favorable terms.

I. G. GAMBRELL.

Pendleton, S. C., Aug. 13, 1851.